

PROGRESS REPORT

GRANT NUMBER: 7310035

High Capacity Airborne Wind Turbine

Altaeros Energies

2/1/2016 – 4/30/2016

Deliverables Submitted

No official deliverables were scheduled to be submitted this period.

Budget

No costs were submitted for this period.

Schedule Status

Altaeros' permitting application was reviewed by all divisions of the FAA's Obstruction Evaluation Group and a 'Notice of Presumed Hazard' was given—prohibiting our permit. Specifically, our site's proximity to a nearby airstrip is too close given the proposed altitude of 1,000 ft. Altaeros was aware of the airstrip, but was not expecting it to impact the FAA's evaluation given the fact that it is non-operational. Altaeros is seeking additional information about whether an exception can be made due to the lack of air traffic at this airport.

A follow up conversation with the group also revealed that a full-day operating permit will not be granted until there is guidance given by the national office on marking and lighting for airborne wind energy systems. The FAA advised Altaeros that it's unlikely any guidance from the national office will be delivered in 2016. This news was unexpected and is related to an FAA evaluation currently being done of another airborne wind energy technology.

Given these FAA-related delays, Altaeros has done a review of the project and determined that there are a number of options to continue a path forward. **Altaeros suggests a further conversation with the Alaska Energy Authority to discuss this program shift.**

Percent Complete

Tasks/Milestones	Start Date	End Date	Percent Complete
Task 1: Final site selection, permitting, and community forum	Mar-13	Jun-17	70%
Task 2: 30 kw turbine assembly and testing in Massachusetts	Jul-13	Sep-17	35%
Task 3: Complete instrumentation plan and shakedown test plan	Jul-13	Sep-17	30%

Work Progress

Task 1:

- Cost Share Complete.
- Permitting.
 - Revising site options and permit application to account for altitude and siting hazards.
 - Approval received to locally test the BAT at the Pease International Tradeport (formerly Pease Air Force Base) in Portsmouth, NH.

Task 2:

- Altaeros has made strong progress on the airborne platform prototype system, including ground systems, aerostat design, and instrumentation, controls and communication systems. Prototype fabrication is ongoing.

Task 3:

- Testing and data continue to inform the development of the commercial BAT30 for this project.

Future Work

Task 1:

- Permitting.
 - Continue work with FAA and GVEA to revise siting and re-apply for permit.
- Community Assessment (after FAA permitting).

Task 2:

- Complete airborne platform prototype development and test at Pease, New Hampshire.
 - Finalize design and selection of ground station, winches, and tethers.
 - Finalize airborne platform design including controls, communication systems, monitoring, and data collection instrumentation.
 - Assemble and test airborne platform at Pease.

Task 3:

- Testing and data continue to inform the development of the commercial BAT30 for this project.